SONY

3-798-892-21(2)

FM Stereo FM-AM Receiver

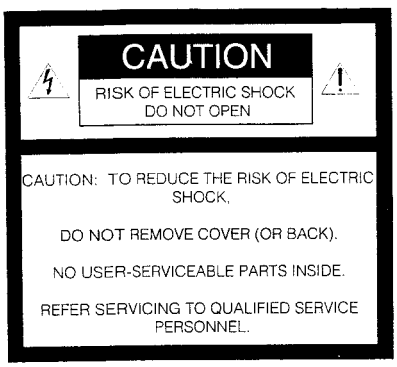
Operating Instructions

STR-D965
STR-D865

© 1995 by Sony Corporation

WARNING

To prevent fire or shock hazard, do not expose the unit to rain or moisture.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK).
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.
These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

CAUTION

You are cautioned that any change or modifications not expressly approved in this manual could void your authority to operate this equipment.

Note to CATV system installer

This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Owner's record

The model and serial numbers are located on the rear of the unit. Record the serial number in the space provided below. Refer to them whenever you call upon your Sony dealer regarding this product.

Model No. STR-D965/STR-D865
Serial No. _____

For the customers in Canada

CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

Precautions

On safety

- Should any solid object or liquid fall into the cabinet, unplug the receiver and have it checked by qualified personnel before operating it any further.

On power sources

- Before operating the receiver, check that the operating voltage is identical with your local power supply. The operating voltage is indicated on the nameplate at the rear of the receiver.
- The receiver is not disconnected from the AC power source as long as it is connected to the wall outlet, even if the receiver itself has been turned off.
- If you are not going to use the receiver for a long time, be sure to disconnect the receiver from the wall outlet. To disconnect the AC power cord, grasp the plug itself; never pull the cord.
- One blade of the plug is wider than the other for the purpose of safety and will fit into the wall outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- Should the AC power cord need to be changed, have it done at a qualified service shop only.

On placement

- Place the receiver in a location with adequate ventilation to prevent heat build-up and prolong the life of the receiver.
- Do not place the receiver near heat sources, or in a place subject to direct sunlight, excessive dust or mechanical shock.
- Do not place anything on top of the cabinet that might block the ventilation holes and cause malfunctions.

On operation

- Before connecting other components, be sure to turn off and unplug the receiver.

On cleaning

- Clean the cabinet, panel and controls with a soft cloth slightly moistened with a mild detergent solution. Do not use any type of abrasive pad, scouring powder or solvent such as alcohol or benzine.

For the customers in the USA
For detailed safety precautions, see the "IMPORTANT SAFEGUARDS" leaflet.

If you have any question or problem concerning your receiver, please consult your nearest Sony dealer.

About This Manual

The instructions in this manual are for models STR-D965 and STR-D865. Check your model number by looking at the lower right corner of the front panel. In this manual, the STR-D965 is the model used for illustration purposes, any difference in operation is clearly indicated in the text, for example, :"STR-D965 only".

Type of differences

Feature \ Model	D965	D865
VIDEO 3 input	•	
Impedance selector	•	

Conventions

- The instructions in this manual describe the controls on the receiver. You can also use the controls on the remote if they have the same or similar names as those on the receiver.
- A "Quick Reference Guide" is supplied on the back cover.
- The "Remote Button Descriptions" section on page 27 provides an overview of the remote buttons.
- The following icons are used in this manual:

Indicates that you can use the remote to do the task.

Indicates hints and tips for making the task easier.

This receiver incorporates the Dolby Pro Logic Surround system.
Manufactured under license from Dolby Laboratories Licensing Corporation.
Additionally licensed under Canadian patent number 1,037,877. "Dolby," the double-D symbol ◻◻ and "Pro Logic" are trademarks of Dolby Laboratories Licensing Corporation.

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Quick Reference Guide (back cover)

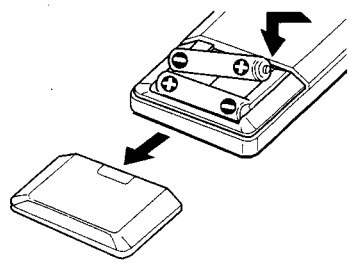
Unpacking

Check that you received the following items with the receiver:

- FM wire antenna (1)
- AM loop antenna (1)
- Remote commander (remote) (1)
- Size AA (R6) batteries (2)

Inserting batteries into the remote

Insert two size AA (R6) batteries with the + and – on the battery compartment. When using the remote, point it at the remote sensor ■ on the receiver.



When to replace batteries

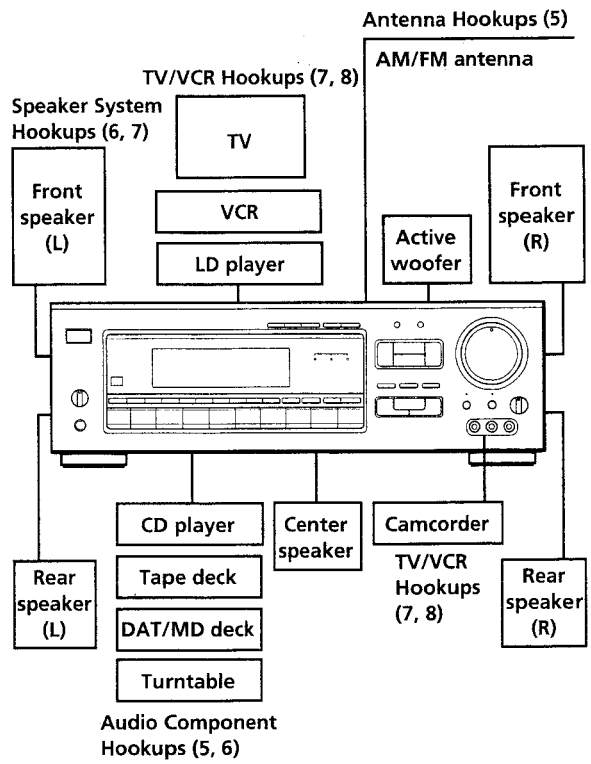
Under normal use, the batteries should last for about 6 months. When the remote no longer operates the receiver, replace both batteries with new ones.

Notes

- Do not leave the remote in an extremely hot or humid place.
- Do not use a new battery with an old one.
- Do not expose the remote sensor to direct sunlight or lighting apparatuses. Doing so may cause a malfunction.
- If you don't use the remote for an extended period of time, remove the batteries to avoid possible damage from battery leakage and corrosion.

Hookup Overview

The receiver allows you to connect and control the following audio/video components. Follow the hookup procedures for the components that you want to connect to the receiver on the pages specified. To learn the locations and names of each jacks, see "Rear Panel Descriptions" on page 26.



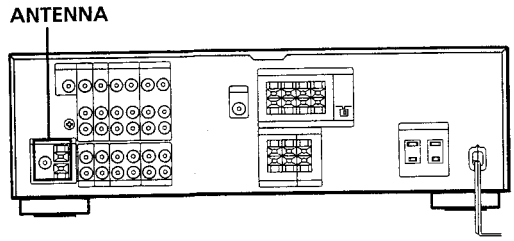
Before you get started

- Turn off the power to all components before making any connections.
- Do not connect the AC power cords until all of the connections are completed.
- Be sure to make connections firmly to avoid hum and noise.
- When connecting an audio/video cable, be sure to match the color-coded pins to the appropriate jacks on the components: Yellow (video) to Yellow; White (left, audio) to White; and Red (right, audio) to Red.

Antenna Hookups

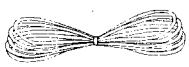
Overview

This section describes how to connect AM and FM antennas to the receiver. If you want to receive radio broadcasts with the receiver, complete these connections first, then go to the following pages. For specific locations of the terminals, see the illustration below.

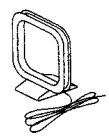


What antennas will I need?

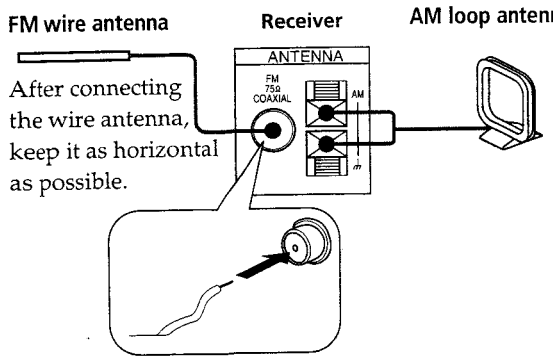
- FM wire antenna (supplied) (1)



- AM loop antenna (supplied) (1)

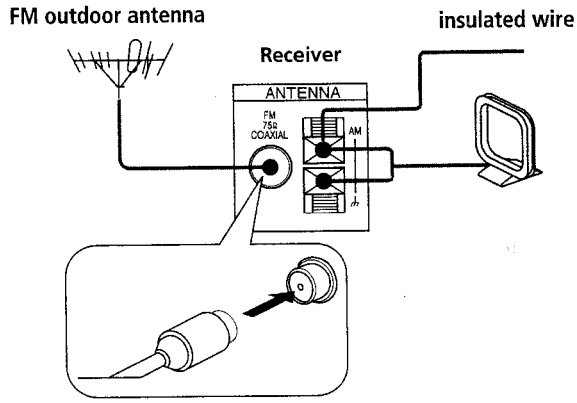


Hookups



If you have poor FM reception

Connect a 75-ohm coaxial cable (not supplied) to an FM outdoor antenna.

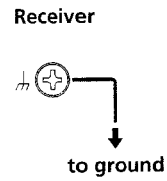


If you have poor AM reception

Connect a 20 to 50 ft. (6 to 15-meter) insulated wire (not supplied) to the AM antenna terminal in addition to the AM loop antenna. Try to extend the wire outdoors and keep it horizontal.

Connecting a ground wire

To prevent hum, connect a ground wire (not supplied) to the ⏚ ground terminal. If you've connected an outdoor antenna, be sure to connect the ground for lightning protection.



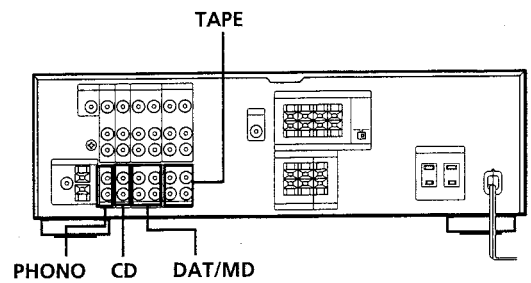
Where do I go next?

If you want to connect other components, go on to the next section. If you're only planning to use the receiver to listen to the radio, go to "Speaker System Hookups" on pages 6 and 7.

Audio Component Hookups

Overview

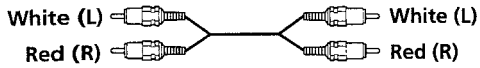
This section describes how to connect your audio components to the receiver. If you want to use the receiver as an amplifier, complete these connections. For specific locations of the jacks, see the illustration below.



(continued)

What cords will I need?

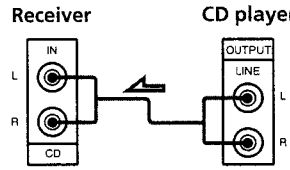
Audio cords (not supplied) (1 for each CD player and turntable; 2 for each tape deck, DAT deck, or MD recorder)



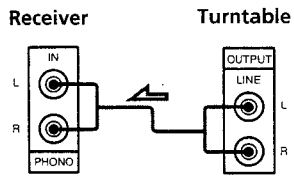
Hookups

The arrow ⇨ indicates signal flow.

CD player

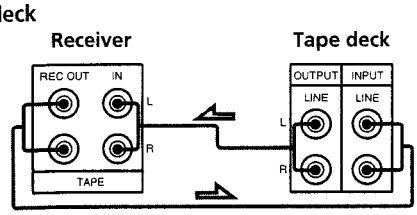


Turntable

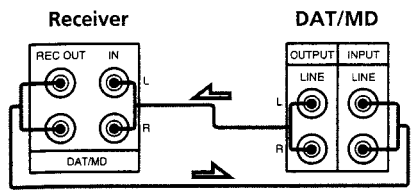


- **If your turntable has an earth lead**
  To prevent hum, connect the earth lead to the ⏚ ground terminal on the receiver.

Tape deck



DAT/MD



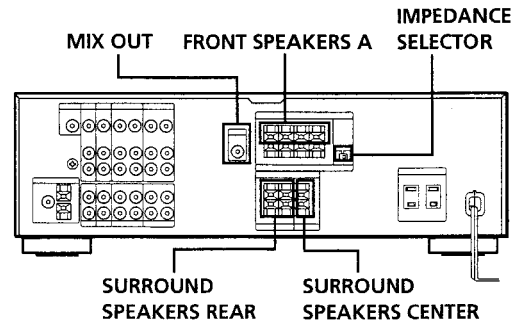
Where do I go next?

Go on to the next section to connect the speakers.

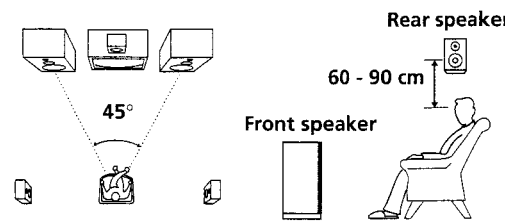
Speaker System Hookups

Overview

This section describes how to connect your speakers to the receiver. Although front (left and right) speakers are required, center and rear speakers are optional. Adding center and rear speakers will enhance the surround effects. Connecting an active woofer will increase bass response.
For specific locations of the terminals, see the illustration below.



For optimum surround sound effect, place your speakers as shown below.



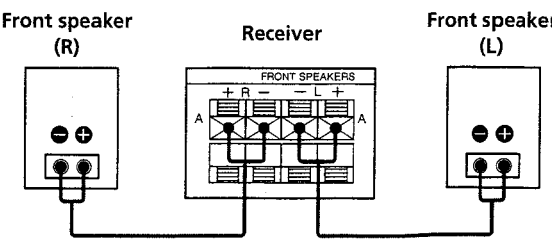
What cords will I need?

Speaker cord (not supplied) (1 for each speaker)

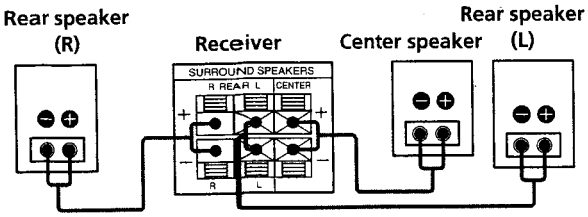
Twist the stripped ends of the cord about 2/3 inch (15 mm). Be sure to match the speaker cord to the appropriate terminal on the components: + to + and – to –. If the cords are reversed, the sound will be distorted and will lack bass.

Hookups

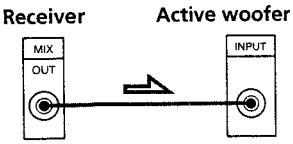
Front speakers



Rear and center speakers



Active woofer



If you have an additional front speaker system
Connect them to the FRONT SPEAKERS B terminals.

If your TV monitor uses separate speakers
You can connect one of them to the SURROUND SPEAKER CENTER terminals for use with Dolby Pro Logic Surround Sound (see page 17).

Selecting the impedance (STR-D965 only)

Set the IMPEDANCE SELECTOR for the front speakers as indicated in the table below. Check the instruction manual of your speakers if you're not sure of the impedance. (This information is usually printed on a label on the back of the spaeaker.)

if nominal impedance of your speaker is	Set IMPEADANCE SELECTOR to
4 ohms or higher	4 Ω
8 ohms or higher	8 Ω

Selecting the speaker system

If you connect only one set of front speakers, set the SPEAKERS selector on the front panel to A. If you connect two sets of front speakers, see the following:

To drive	Set SPEAKERS selector to
Speaker system A (connected to the FRONT SPEAKERS A terminals)	A
Speaker system B (connected to the FRONT SPEAKERS B terminals)	B
Both speaker systems A and B (parallel connection)	A+B*

*Do not use A+B with SURROUND ON.

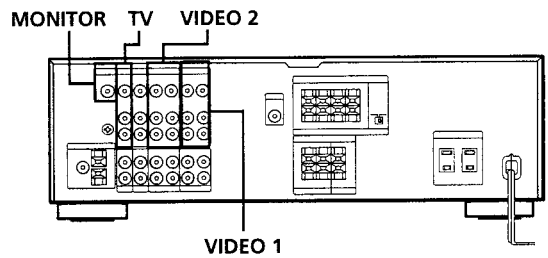
Where do I go next?

To complete your system, go to "AC Hookups" on page 8. If you want to connect video components to enjoy surround sound when watching TV programs or video tapes, go on to the next section.

TV/VCR Hookups

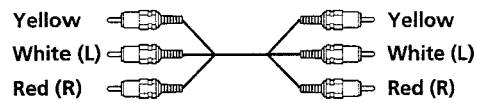
Overview

This section describes how to connect video components to the receiver. For specific locations of the jacks, see the illustration below.

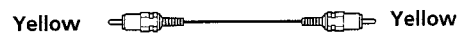


What cables will I need?

- Audio/video cable (not supplied) (1 for each TV or LD player; 2 for each VCR)



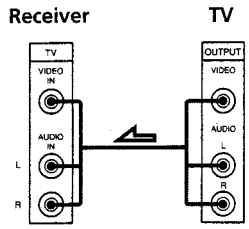
- Video cable (not supplied) (1 for a TV)



Hookups

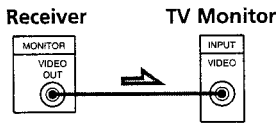
The arrow ⟹ indicates signal flow.

TV

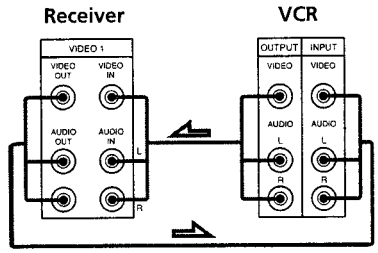


(continued)

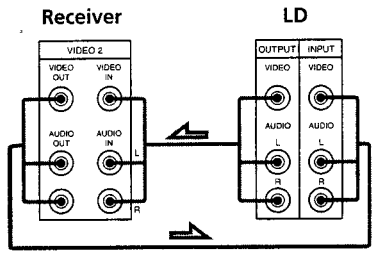
MONITOR
If you use a TV monitor, do not connect anything to the TV VIDEO IN jack.



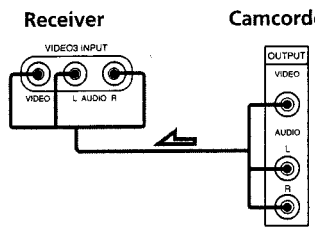
VCR (via the VIDEO 1 jacks)
If you have two VCRs connect the second one to the VIDEO 2 jacks.



LD Player



Camcorder
Use the VIDEO 3 INPUT on the front panel (STR-D965 only). You cannot record on the camcorder (or VCR) connected to the VIDEO 3 INPUT jacks.



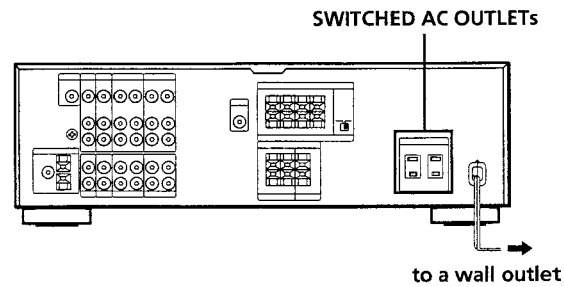
Where do I go next?

Go on to the next section to connect an AC plug and complete your home theater system.

AC Hookups

Connecting the AC power cord

Connect the AC power cord from this receiver and from your audio/video components to a wall outlet. If you connect other audio components to the SWITCHED AC OUTLETs on the receiver, the receiver can supply power to the connected components so you can turn on/off whole system when you turn on/off the receiver.



Caution
Make sure that the power consumption of the component connected to the receiver's AC outlet does not exceed 120 watts. Do not connect high-wattage electrical home appliances such as electric irons, fans, or TVs to this outlet.

Where do I go next?

Before you use the receiver, go to the next section to make sure that all the controls are set to the appropriate positions.

Before You Use Your Receiver

Before you start using your receiver, make sure that you have:

- Turned MASTER VOLUME to the leftmost position (0).
- Selected the appropriate speaker system. (For details, see "Selecting the speaker system" on page 7.)
- Set BALANCE to the center position.

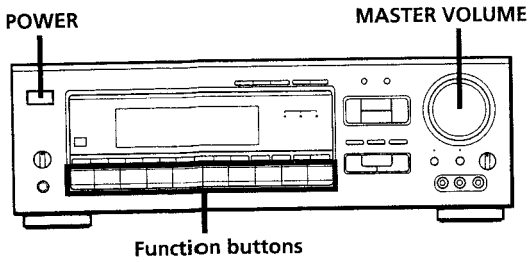
Turn on the receiver and check the following indicators.

- Press MUTING if the MUTING indicator turns on.

Selecting a Component

To listen to or watch a connected component, first select the function on the receiver or with the remote. Before you begin, make sure you have:

- Connected all components securely and correctly as indicated on pages 5 to 8.
- Turned MASTER VOLUME to the leftmost position (0) to avoid damaging your speakers.



1 Press POWER to turn on the receiver.

2 Press a function button to select the component you want to use:

To listen to or watch	Press
Records	PHONO
Radio programs	TUNER
Compact discs (CD)	CD
Digital Audio Tapes (DAT) or MiniDiscs (MD)	DAT/MD
Laser discs	LD
TV programs	TV
Video tapes	VIDEO 1 VIDEO 2 VIDEO 3 (STR-D965 only)
Audio tapes	TAPE MONITOR

3 Turn on the component, for example, a CD player, and then start playing.
To tune in radio stations on this receiver, see "Receiving Broadcasts" on page 10.

4 Turn MASTER VOLUME to adjust the volume.
To adjust the volume of the TV's speakers, use the volume control on the TV.

To	Do this
Mute the sound	Press MUTING. Press again to restore the sound
Reinforce the bass	Press BASS BOOST to turn on the BASS BOOST indicator.
Adjust the balance	Turn the BALANCE control left or right.

When you use the remote
The remote lets you play the receiver and the Sony components connected to the receiver. See "Remote Button Descriptions" on page 27 for details.

When you listen with headphones
Connect the headphones to the PHONES jack and set the SPEAKERS selector to OFF.

Watching video programs

When you watch TV or video programs, we recommend you play audio portion through the receiver instead of your TV's speaker. This lets you take advantage of the receiver's surround sound effects, like Dolby Surround, and lets you use the receiver's remote to control the audio.
Turn off the speakers on your TV before you start so you can enjoy the surround sound from your receiver.

To watch TV programs, turn on both the TV and the receiver and press the TV button on the receiver.

To watch videos or laser discs, do the following:

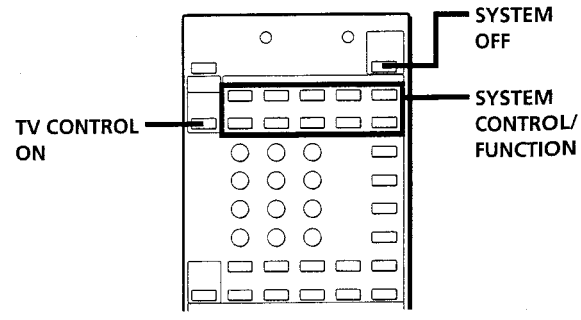
1 Press a function button to select the component (for example, VIDEO 1).

2 Turn on the TV and set the TV's video input to match your video component.

3 Turn on the component (VCR or LD player), and start playback.

Using the remote

The remote lets you operate the receiver and the Sony components that are connected to it.



(continued)

1 Press one of the SYSTEM CONTROL/FUNCTION buttons to select the component you want to use. The SYSTEM CONTROL/FUNCTION buttons on the remote are factory-set as follows:

To listen to or watch	Press
Records	PHONO
Radio programs	TUNER
Compact discs (CD)	CD
Digital Audio Tapes (DAT)	DAT/MD
Audio tapes	TAPE
TV programs	TV
Laser discs	LD
Video tapes	VIDEO 1 (VHS) VIDEO 2 (Beta) VIDEO 3 (8mm)

The receiver and the selected component turn on. If you want to change the factory setting of a button, see page 19.

If the component does not turn on
Press the power switch on the component.

2 Start playing.
Refer to "Remote Button Descriptions" on page 27 for details.

To turn off the components
Press SYSTEM OFF. You can turn off the video and audio components connected to the SWITCHED AC OUTLETs on the back of this unit at the same time.

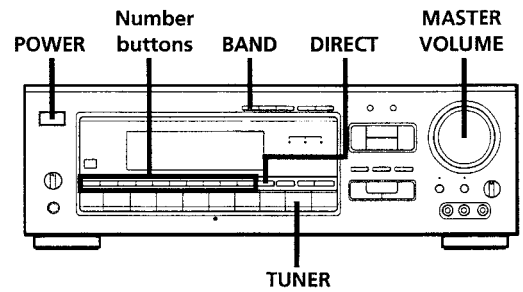
If you use a Sony TV
When you press TV to watch a TV program, the TV turns on and switches to the TV input. The TV also turns on automatically and switches to the appropriate video input when you press LD, VIDEO 1, VIDEO 2 or VIDEO 3 (STR-D965 only). If the TV does not switch to the appropriate input automatically, press TV/VIDEO on the remote.

Watching TV without the receiver (for Sony TVs only)
Press TV CONTROL ON to set the remote to operate TV functions only (see "Remote Button Descriptions" on page 26 for details). When you press this button, the TV turns on and switches to the TV input. If the TV does not automatically switch to the TV input, press TV/VIDEO.

Receiving Broadcasts

This receiver lets you enter a station's frequency directly by using the numeric buttons (direct tuning). If you don't know the frequency of the station you want, see "Receiving broadcasts by scanning stations" (automatic tuning).

Before you begin, make sure you have:
- Connected an FM/AM antenna to the receiver as indicated on page 5.
- Selected the appropriate speaker system. (For details, see "Selecting the speaker system" on page 7.)



1 Press POWER to turn on the receiver.

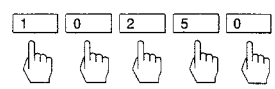
2 Press TUNER.
The last received station is tuned in.

3 Press BAND to select FM or AM stations.

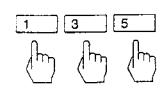
4 Press DIRECT.

5 Press the numeric buttons to enter the frequency.

Example 1: FM 102.50 MHz



Example 2: AM 1350 kHz
(You don't have to enter the last "0.")



6 When you tune in AM stations, adjust the direction of the AM loop antenna for optimum reception.

To receive other stations
Repeat Steps 3 to 5.

If the STEREO indicator remains off
Press FM MODE even when an FM stereo broadcast is received.

If an FM stereo program is distorted
The STEREO indicator flashes. Press FM MODE to change to monaural (MONO). You will not have the stereo effect but the distortion will be reduced. To return to the auto stereo mode, press this button again.

If you cannot tune in a station and the entered numbers are flashing

Make sure you've entered the right frequency. If not, press DIRECT and re-enter the frequency you want.
If the entered numbers still flash, the frequency is not used in your area.

To watch FM simulcast TV programs

Make sure that you tune in the simulcast program both on the TV (or the VCR) and on the receiver.

If you enter a frequency not covered by the tuning interval

The entered value is automatically rounded up or down to the closest covered value.

Tuning intervals for direct tuning are:
FM: 50 kHz intervals
AM: 10 kHz intervals (to change to 9 kHz intervals, see page 22)

Receiving broadcasts by scanning stations (automatic tuning)

If you don't know the frequency of the radio station you want, you can have the receiver scan all the receivable stations to locate the one you want.

1 Press TUNER.
The last received station is tuned in.

2 Press DISPLAY so that "NORMAL MODE" appears in the display.

3 Press BAND to select FM or AM.

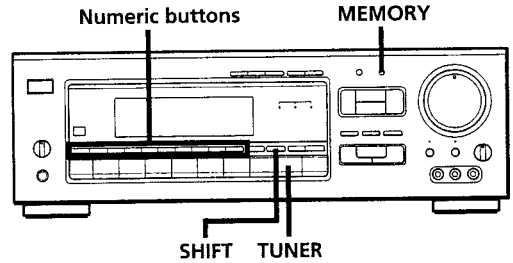
4 Press TUNING/INDEX SELECT + or –.
Press the + button for a higher station number; press the – button for a lower one. When you tune past either end of the band, the receiver automatically jumps to the opposite end and continues scanning in the same direction. Every time a station is received, the receiver stops scanning. To continue scanning, press the button again.

If scanning stops too frequently (for FM band only)

Skip the stations with weak signals. Press LEVEL. "HIGH" appears in the display and the receiver scans only stations with strong signals.

Presetting Radio Stations

You'll most likely want to preset the receiver with the radio stations you listen to often so that you don't have to tune in the station every time. The receiver can store a total of 30 FM or AM stations. You can store the stations on preset numbers combining 3 characters (A, B and C) and numbers (0-9). For example, you can store a station as preset number A1, B6, or C9.



1 Press TUNER.
The last received station is tuned in.

2 Tune in the station you want.
If you are not familiar with how to tune in a station, see "Receiving Broadcasts" on the previous page.

3 Press MEMORY.
"MEMORY" appears for a few seconds.
Do steps 4 and 5 before "MEMORY" goes out.

4 Press SHIFT to select a memory page (A, B or C).
Each time you press SHIFT, the letter "A", "B" or "C" appear in the display.

5 Press the number you want to use (0 to 9).

If "MEMORY" goes out before you specify the preset number, start again from step 3.

6 Repeat steps 2 to 5 to preset other stations.

To change a preset station

Preset a new station on the number you want to change.

Note

If the AC power cord is disconnected for more than one month, the preset stations will be cleared from the receiver's memory, and you will have to preset the stations again.

(continued)

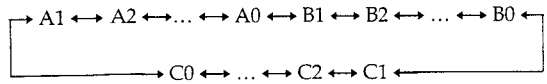
Tuning preset stations (preset tuning)

You can tune directly to a preset station by entering its preset number. If you don't know which stations are preset on which numbers, you can tune by scanning the preset stations.

1 Press TUNER.
The last received station is tuned in.

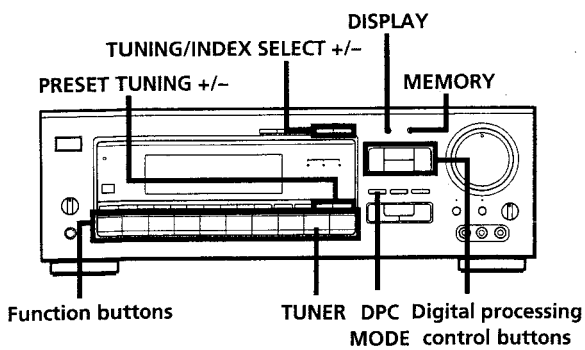
2 Press SHIFT to select a memory page (A, B or C), then press the number.
For example, select A and then press 7 to tune in the station preset as A7.

You can tune by scanning the preset stations
First press TUNER and then press PRESET TUNING + or – to select the station you want. Each time you press the buttons, the preset numbers change as follows:



Indexing

You can index preset stations and then use the index names to scan specific stations in the preset memory. You can also use the index feature to label program sources so that the receiver displays the names of the components you connected, for example, "VHS".



Indexing preset stations

You might find that too many preset stations make it hard to find the station you want. This receiver includes a feature that lets you group preset stations by name (station index) using up to 8 characters.
For example, if you label all of your preset jazz stations "JAZZ," selecting "JAZZ" lets you skip over other presets and scan all the stations labeled "JAZZ." Note that you cannot assign more than one station index name to each preset station.

1 Press TUNER.
The last station you received is tuned in.

2 Press DISPLAY so that "INDEX MODE" appears in the display.

3 Tune in the preset station you want to create an index for.
If you are not familiar with how to tune in preset stations, see "Tuning preset stations (preset tuning)" above.

4 Press DPC MODE repeatedly until the INDEX indicator lights up.

5 Create a station index name by using the digital processing control buttons as follows:
Press ∧ or ∨ to select a character, and then press > to move the cursor to the next position.
To insert a space, press ∧ or ∨ until a blank space appears in the display (the space is between "}" and "!").
The station index you created is stored automatically.

If you've made a mistake
Press < or > repeatedly until the character you want to change flashes. Then select the right character.

6 Repeat Steps 3 to 5 to assign index names to other stations.

You can check the frequency of the indexed station
Each time you press DISPLAY, the display switches between the frequency and the index name.

Scanning indexed stations (index tuning)

Once you select a station index, you can scan all the stations with that station index.

1 Press TUNER.
The last station you received is tuned in.

2 Press DISPLAY repeatedly until "INDEX MODE" appears in the display.
The station index for the last station you received appears in the display.

If "____" appears
The station does not have an station index.

3 Press TUNING/INDEX SELECT + or – to select the station index you want to scan.

4 Press PRESET TUNING + or – to select the station you want receive.

To select different station indexes
Press TUNING/INDEX SELECT + or – to select the one you want, then press PRESET TUNING + or – to select a station.

Indexing program sources

This feature is useful when, for example, you have more than one VCR: you can label one VCR as "VHS" and label the other as "8MM." Then, you can have the receiver display the index names so you can tell which VCR you are using. This feature also comes in handy if you connect a component to jacks designed for another component (for example, connecting a second CD player to the DAT/MD jacks).

1 Press the FUNCTION button you want to label.

2 Press DISPLAY repeatedly until "NAME MODE" appears in the display.

3 Press DPC MODE repeatedly until the INDEX indicator lights up.

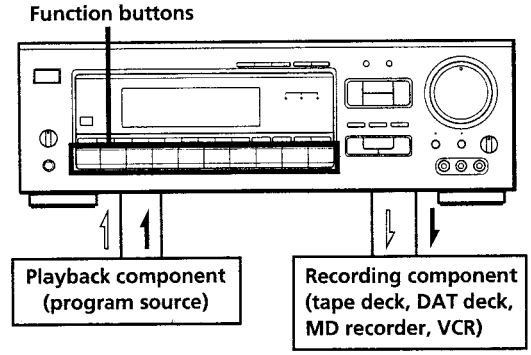
4 Create a name by using the digital processing control buttons as follows:
Press ∧ or ∨ to select a character, and then press > to move the cursor to the next position.
To insert a space, press ∧ or ∨ until a blank space appears in the display (the space is between "}" and "!").
The name you created is stored automatically.

If you've made a mistake
Press < or > repeatedly until the character you want to change flashes. Then select the right character.

Recording

This receiver makes it easy to record to and from the components connected to the receiver. You don't have to connect playback and recording components directly: once you select a program source on the receiver, you can record and edit as you normally would using the controls on each component.

Before you begin, make sure you've connected all components properly.



: Audio signal flow
: Video signal flow

Recording on an audio tape or MiniDisc

You can record on a cassette tape, Digital Audio Tape or MiniDisc using the receiver. See the instruction manual of your cassette deck, DAT deck, or MD recorder if you need help.

1 Press one of the function buttons to select the component to be recorded.

2 Set the component to be ready for playing.
For example, insert a CD into the CD player.

3 Insert a blank tape into the recording deck and adjust the recording level, if necessary.

4 Start recording on the recording deck and then start playing the component.

You can monitor the sound being recorded
If you connected a 3-head tape deck to the TAPE MONITOR jacks, press TAPE MONITOR to light the TAPE MONITOR indicator and you can hear the sound being recorded.

Note
When you record on a DAT or MD connected to the DAT/MD REC OUT jacks, sound adjustments do not effect the recording.

(continued)

Recording on a video tape

You can record from a VCR, a TV, or a LD player using the receiver. You can also add audio from a variety of audio sources when editing a video tape. See your VCR or LD player's instruction manual if you need help.

1 Press one of the function buttons to select the program source to be recorded.

2 Set the component to be ready for playing.
For example, insert the laser disc you want to record from into the LD player.

3 Insert a blank video tape into the VCR (VIDEO 1 or VIDEO 2) for recording.

4 Start recording on the recording VCR and then start playing the video tape or laser disc you want to record.

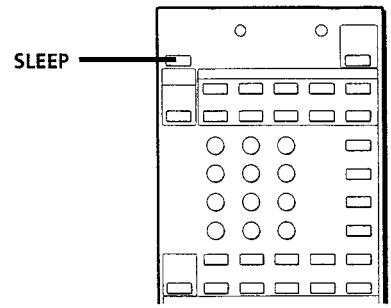
You can replace audio while copying a video tape or laser disc

At the point you want to start adding different sound, press another function button (for example, CD) and start playback. The sound from the selected component will be recorded over the original audio.

To resume recording the sound of the original playback source, press the function button for that component.

Using the Sleep Timer

You can set the receiver to turn off automatically at a time you specify.



Press SLEEP on the remote while the power is on. Each time you press SLEEP, the time changes as shown below.

→ 2:00:00 → 1:30:00 → 1:00:00 → 0:30:00 → OFF

The display dims after you specify the time.

You can freely specify the time

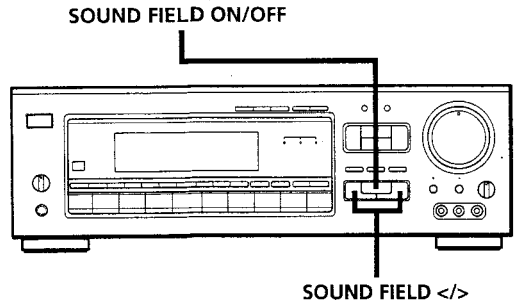
Press SLEEP first, then specify the time you want using the digital processing control (∧ or ∨) buttons. The sleep time changes in 1 minute intervals. You can specify up to 5 hours.

You can check the time remaining before the receiver turns off

Press SLEEP. The remaining time appears in the display.

Using Pre-programmed Sound Fields

You can take advantage of surround sound simply by selecting one of the five pre-programmed sound fields according to the program you want to play.



1 Press SOUND FIELD ON/OFF to turn on the sound field.
One of the indicators lights up in the display.

2 Press SOUND FIELD < or > repeatedly until the indicator for the sound field you want lights up.
Select the appropriate sound field as follows:

For tapes/discs with	Select	To
Dolby Surround	DOLBY SUR	Decode programs processed with Dolby Surround.
Movie programs	THEATER	Add the acoustic reflections of a theater to decoded Dolby Surround signals.
Music programs	STADIUM	Reproduce the feeling of spaciousness found in a large open-air stadium. Especially effective when playing programs with electric sounds.
Orchestral music, chamber music, or an instrumental solo	HALL	Reproduce the acoustics of a rectangular concert hall. Ideal for soft, acoustic sounds.
Video games	GAME	Obtain maximum audio impact from video game software.

To play without surround effects
Select ACOUSTIC. The surround effects are defeated but you can still adjust the tone parameter (see page 16).

To turn off the sound fields
Press SOUND FIELD ON/OFF.

You can find Dolby Surround-encoded software by looking at the packaging
However, some videos and laser discs may use Dolby Surround sound even if it's not indicated on the package.

Note
Make sure to select both speakers (A+B) with the SPEAKERS selector when you use two sets of speakers; otherwise, you will not obtain the full surround effect.

Taking Advantage of the Sound Fields

How can you customize the sound fields?

Each sound field is composed of sound parameters — variables of sound that create sound image. You can customize the sound fields by adjusting some of the sound parameters to best suit your listening condition. See the following chart for the adjustable sound parameters.

Once you customize the sound fields, they are stored in memory unless the receiver is unplugged for about 1 month.

The adjustable parameters for each sound field are shown on the chart below.

	TONE	EFFECT*	REAR	CENTER	DELAY
ACOUSTIC	●				
DOLBY SUR	●		●	●	●
THEATER	●	●	●	●	
STADIUM	●	●	●		
HALL	●	●	●		
GAME	●	●	●		

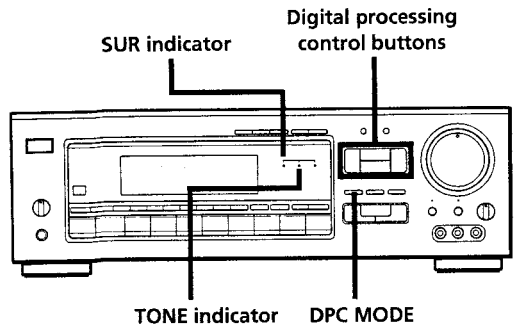
* The EFFECT parameter allows you to adjust the overall presence of the sound field.

Before you get started

To take advantage of Dolby Pro Logic Surround sound, go to "Getting the Most Out of Dolby Pro Logic Surround Sound" on page 17. This section describes how to adjust the levels of your speaker system and customize the DOLBY SUR sound field.

Customizing Sound Fields

You can customize the sound fields by adjusting the tone (bass or treble) and surround sound parameters while listening to a program source. The adjusted parameters are stored in memory automatically and you can use your custom sound fields just as you would use the pre-programmed ones. Before you start, select the sound field you want to customize and start playing a program.



Adjusting the tone parameter

Adjust the tone (bass or treble) of the front, center and rear speakers for optimum sound. You can adjust the tone of all sounds fields, including Dolby Surround.

1 Press DPC MODE repeatedly until the TONE indicator lights up.

2 Press digital processing control buttons (< />) to select BASS or TREBLE.

3 Press the digital processing control buttons (∧ /∨) to adjust the tone level.
The adjusted tone level is stored automatically.

You can turn off the tone adjustments without erasing them
The tone adjustments and on/off setting are stored in each sound field. Press TONE ON/OFF to turn the tone parameter off or on.

Adjusting surround sound parameters

Change the surround parameters to fit your listening situation. Refer to the chart on the previous page for parameters you can adjust in each sound field.

To adjust the parameters of the DOLBY SUR sound field, see "Getting the Most Out of Dolby Pro Logic Surround Sound".

1 Press DPC MODE repeatedly until the SUR indicator lights up.

2 Press the digital processing control buttons (∧ /∨) to select the parameter you want.

3 Press the digital processing control buttons (< / >) to adjust the level of the parameter.
The adjusted parameters are stored automatically.

Note
If you make new adjustments to a sound field, the previous settings are replaced by the new ones.

Resetting customized sound fields to the factory settings

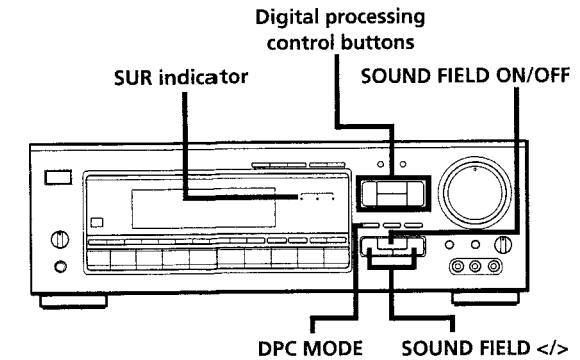
1 If the power is on, press POWER to turn off the power.

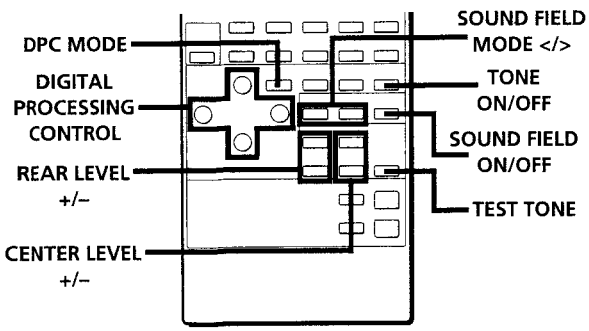
2 Hold down SOUND FIELD ON/OFF and press POWER.
"SURR CLEAR!" appears in the display and all the sound fields are reset at once.

Getting the Most Out of Dolby Pro Logic Surround Sound

To obtain the best possible Dolby Pro Logic Surround sound, first select the center mode according to your speaker system. Then, adjust the sound parameters of the DOLBY SUR sound field.

Note that you must have at least one additional pair of speakers and/or one center speaker to do the following adjustments.





Selecting the center mode

The receiver offers you four center modes: PHANTOM, 3 CHANNEL LOGIC, NORMAL, and WIDE. Each mode is designed for a different speaker configuration. Select the mode that best suits your speaker system configuration.

1 Press SOUND FIELD ON/OFF to turn on the sound fields.

2 Press SOUND FIELD < or > repeatedly to select the DOLBY SUR sound field.

3 Press CENTER MODE repeatedly until the center mode you want appears in the display. Select the center mode by referring to the following chart.

If you have	Select	So that
Front and rear speakers, no center speaker	PHANTOM	The sound of the center channel is output from the front speakers.
Front and center speakers, no rear speaker	3 CH LOGIC (3 Channel Logic)	The sound of the rear channel is output from the front speakers.
Front and rear speakers, and a small center speaker	NORMAL	The bass sound of the center channel is output from the front speakers (because a small speaker cannot produce enough bass).
Front and rear speakers, and a center speaker equivalent to your front speakers	WIDE	For "complete" Dolby Pro Logic Surround sound.

Adjusting the speaker volume

The test tone feature lets you set the volume of your speakers to the same level. (If all of your speakers have equal performance, you don't have to adjust the speaker volume.)

Using the controls on the remote lets you adjust the volume level from your listening position.

1 Press TEST TONE on the remote.
You will hear the test tone from each speaker sequentially.

2 Adjust the volume levels so that you hear the test tone from each speaker at the same volume level when you are in your listening position:
- To adjust the volume between the front right and front left speakers, use the BALANCE control on the front of the main unit.
- To adjust the level of center speaker, press CENTER LEVEL + or – on the remote.
- To adjust the level of rear speakers, press REAR LEVEL + or – on the remote.

3 Press TEST TONE on the remote to turn off the test tone.

You can adjust all speakers at one time
Adjust MASTER VOLUME.

(continued)

You can increase the output level of the rear speakers

Although the adjustment range of the rear speakers is preset, you can shift the range up for increased output. Hold down the CENTER MODE button while turning on the receiver, "GAIN [UP]" appears in the display. The displayed values remain fixed at –15 to +10 but you can hear the difference in the actual output.
To reset the rear level adjustment range, repeat this procedure, "GAIN [NORMAL]" is displayed.

Adjusting the delay time

You can make the surround sound more effective by delaying the output from the rear speakers (delay time). You can adjust the delay time in 5 ms steps within the range of 15 to 30 ms. For example, if you've placed the rear speakers in a large room or apart from your listening position, set the delay time shorter.

1 Start playing a program source encoded with Dolby surround sound.

2 Press DPC MODE until the SUR indicator lights up.

3 Press the digital processing control buttons (∧/∨) to select the delay time.
The current delay time appears in the display.

4 Press the digital processing control buttons (< / >) to adjust the delay time.

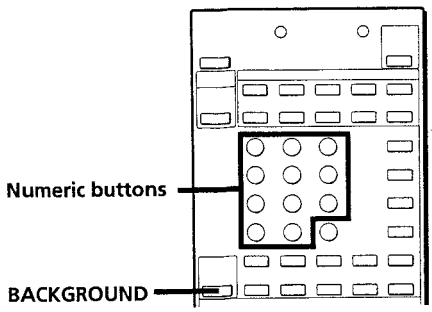
Adjusting the tone

You can adjust the tone of the speakers.

Follow the procedure described in "Adjusting the tone parameter" an page 16.

Operating One Component While Using Another (background operation)

You can temporality operate other components while listening to or watching a program.



1 Hold down BACKGROUND.

2 Press both the corresponding numeric button of the component you're going to use (see the table below) and one of the following buttons at the same time; VISUAL POWER, TV/VIDEO, CH PRESET +/–, ANT TV/VTR, D.SKIP, ►, ◄, ■, ◄◄/►►, I◄◄ / ►►I, II, ●.

Example: To start recording on a tape deck while listening to a CD
While holding down BACKGROUND, press 4 (or 5) and press ● + ► at the same time.

The numeric buttons are assigned to select the functions as follows:

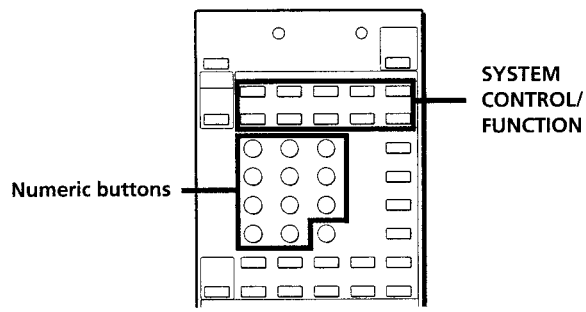
Numeric button	Operates
1	CD player
2	DAT deck
3	MD deck
4	Tape deck A
5	Tape deck B
6	LD player
7	VCR (remote control mode VTR 1*)
8	VCR (remote control mode VTR 2*)
9	VCR (remote control mode VTR 3*)
0	TV

* Sony VCRs are operated with a VTR 1, 2 or 3 setting. These correspond to VHS, Beta and 8mm respectively.

Changing the Factory Setting of a FUNCTION Button

If the factory settings of the FUNCTION buttons (page 10) don't match your system components, you can change them. For example, if you have two CD players and you don't have a DAT or an MD recorder, you can assign the DAT/MD button to your second CD player.

Note that the settings of the TUNER and PHONO buttons cannot be changed.



1 Holding down the SYSTEM CONTROL/ FUNCTION button whose function you want to change (DAT/MD, for example).

2 Press the corresponding numeric button of the component you want to assign to the SYSTEM CONTROL/FUNCTION button (1 - CD player, for example).

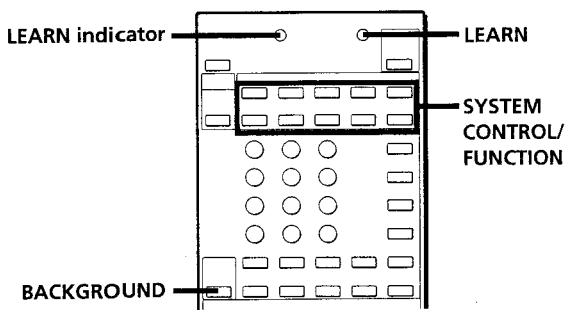
For the numeric buttons, see the table in "Operating One Component While Using Another."
Now you can use the DAT/MD button to control a second CD player.

To reset the setting to the factory setting
Repeat the above procedure.

Programming the Remote (for STR-D965 only)

The RM-P351 remote included with the STR-D965 can control non-Sony components by "learning" the control signals from their remotes. Once this remote learns the other components signals, you can use these components as part of your system. Additionally, if you have any Sony components that fail to operate with this remote, use this programming function. This remote can "learn" signals only from other infrared wireless remotes. Before you program signals, make sure that the two remotes:

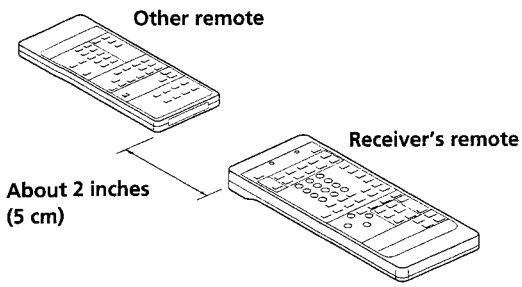
- Face straight at each other (see Step 3 below)
- Are placed at a distance of about 2 inches (5 cm)
- Are not moved during programming



1 Press the SYSTEM CONTROL/FUNCTION button of the component you want to program.
For example, if you want to program a CD player's remote, press CD.

2 Press LEARN to turn on the LEARN indicator.

3 Press the button on this unit's remote that is to "learn" the signal from the other remote.
The LEARN indicator flashes slowly.
For the buttons you can use, see "Remote Button Descriptions" on page 27 for the buttons you can use to operate each component.



If the LEARN indicator flashes rapidly
You cannot use the button you've pressed.

4 On the other remote, select the function that the receiver's remote is to "learn" and hold down its button until the LEARN indicator lights steadily.

5 Repeat Steps 3 and 4 to program other buttons.
Note that each button can only "learn" one signal from another remote.

6 Press LEARN.
After the LEARN indicator turns off, you can control the other component with the programmed buttons.

When you program the recording signal
While holding down the ● button on the receiver's remote and press the record button on the other remote.

If you cannot successfully program signals, check the following:

- If the LEARN indicator does not light up at all, the batteries are weak. Replace both batteries.
- If the LEARN indicator does not flash or light up in Step 3 or 4, there is interference. Clear the signal as described in "Clearing the programmed signal" below and program again from the beginning.
- The two remotes are placed too far apart. Make sure they are only 2 inches apart.
- If you don't proceed to the following steps within about 1 minute during Steps 2 and 3, the remote automatically exits learning mode. Start again from Step 2.
- If the memory in the remote has become full, (If you program signals of Sony components, you can store about 60 signals.) you can program a new signal on a previously programmed button, but the new signal will replace the previously programmed one.

Notes

- You cannot turn on programmed components by pressing a SYSTEM CONTROL/FUNCTION button. You have to turn on the component's power switch.
- Do not program remote signals of air conditioners or other household appliances.

Clearing the programmed signal

To clear the programmed signals, do the following. The button's functions are reset to the factory-preset.

1 Press LEARN to turn on the LEARN indicator.

2 While holding down BACKGROUND, hold down the button to be cleared until the LEARN indicator turns off.

Troubleshooting

If you experience any of the following difficulties while using the receiver, use this troubleshooting guide to help you remedy the problem. Should any problem persist, consult your nearest Sony dealer.

There's no sound or only a very low-level sound is heard.

- ➡ Check that the speakers and components are connected securely.
- ➡ Make sure you select the correct component on the receiver.
- ➡ Make sure you set the SPEAKERS selector correctly.
- ➡ Press MUTING if the MUTING indicator is on.
- ➡ The protective device on the receiver has been activated because of a short circuit. ("PROTECTOR" flashes.) Turn off the receiver, eliminate the short-circuit problem and turn on the power again.

The left and right sounds are unbalanced or reversed.

- ➡ Check that the speakers and components are connected correctly and securely.
- ➡ Adjust the BALANCE control.

Severe hum or noise is heard.

- ➡ Check that the speakers and components are connected securely.
- ➡ Check that the connecting cords are away from a transformer or motor, and at least 10 feet (3 meters) away from a TV set or fluorescent light.
- ➡ Place your TV away from the audio components.
- ➡ Make sure you connect a ground wire to the antenna ground terminal.
- ➡ The plugs and jacks are dirty. Wipe them with a cloth slightly moistened with alcohol.

No sound is heard from the center speaker.

- ➡ Select either the DOLBY SUR or THEATER sound field (see page 15).
- ➡ Select the appropriate center mode (see page 17).
- ➡ Adjust the speaker volume appropriately (see page 17).

No sound or only a very low-level sound is heard from the rear speakers.

- ➡ Turn on the sound field function and select a sound field other than ACOUSTIC.
- ➡ Select the appropriate center mode (see page 17).
- ➡ Adjust the speaker volume appropriately (see page 17).
- ➡ Make sure you turned on the sound field function.

Radio stations cannot be tuned in.

- ➡ Check that the antennas are connected securely. Adjust the antennas and connect an external antenna if necessary.
- ➡ The signal strength of the stations is too weak (when you tune in with automatic tuning). Use direct tuning.
- ➡ Make sure you set the tuning interval correctly (when you tune in AM stations with automatic tuning) (see pages 10 and 22).
- ➡ No stations have been preset or the preset stations have been cleared (when you tune in with scanning preset stations). Preset the stations (see page 11).
- ➡ Make sure to set the display mode to "NORMAL MODE" (when you tune with automatic tuning).

Surround effect cannot be obtained.

- ➡ Turn on the sound field function and select a sound field other than ACOUSTIC.
- ➡ Make sure that the SPEAKERS selector is set to A+B when you use two sets of front speakers.

No picture or an unclear picture is seen on the TV screen.

- ➡ Select the appropriate function on the receiver.
- ➡ Set your TV to the appropriate input mode (press TV/VIDEO on the remote for Sony TVs).
- ➡ Place your TV away from the audio components.

Recording cannot be made.

- ➡ Check that the components are connected correctly.
- ➡ Select the source component with the function buttons.

The remote does not function.

- ➡ Point the remote at the remote sensor ■ on the receiver.
- ➡ Remove the obstacles in the path of the remote and the receiver.
- ➡ Replace both batteries in the remote with new ones if they are weak.
- ➡ Make sure you select the correct function on the remote.

Specifications

Audio power specifications

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 8-ohm load, both channels driven, from 20 - 20,000 Hz, STR-D965 rated 110 watts, STR-D865 rated 100 watts per channel, minimum RMS power, with no more than 0.3 % total harmonic distortion from 250 milliwatts to rated output. (USA model only)

Amplifier section

POWER OUTPUT

Stereo mode 8 ohms 20 Hz - 20 kHz,
STR-D965:
110 W + 110 W
STR-D865:
100 W + 100 W

Surround mode 8 ohms at 1 kHz,
THD 0.8 %

	STR-D965	STR-D865
Front	100 W/ch	100 W/ch
Center (only in the DOLBY SUR and THEATER modes)	100 W	100 W
Rear	50 W/ch	25 W/ch

Dynamic power output
STR-D965:
160 W + 160 W (8 ohms)
225 W + 225 W (4 ohms)
STR-D865:
155 W + 155 W (8 ohms)
220 W + 220 W (4 ohms)

Harmonic distortion at rated output Less than 0.3 %

Frequency response PHONO: RIAA equalization curve ±0.5 dB
CD, TAPE, DAT/MD, VIDEO 1, 2, 3*: $^{+0}_{-1}$ dB
10 Hz - 50 kHz

Inputs

	Sensitivity	Impedance	S/N (weighting network, input level)
PHONO (MM)	2.5 mV	50 kilohms	75 dB** (A, 2.5 mV)
CD	300 mV		
TAPE, DAT/MD, TV, LD, VIDEO 1, 2, 3*	250 mV	50 kilohms	82 dB** (A, 250 mV)

* STR-D965 only
** '78 IHF

Outputs REC OUT VIDEO 1, 2 (AUDIO) OUT:
Voltage 250 mV,
Impedance 10 kilohms
MIX OUT
Voltage: 2 V
Impedance: 1 kilohms
HEADPHONES: Accepts low and high impedance headphones

Muting – 20 dB

BASS BOOST +10 dB at 70 Hz

TONE ±8 dB at 100 Hz and 10 kHz

FM tuner section

Tuning range 87.5 - 108.0 MHz

Antenna terminals 75 ohms, unbalanced

Sensitivity Mono: 18.3 dBf, 4.5 µV
Stereo: 38.3 dBf, 45 µV

Usable sensitivity 11.2 dBf, 2 µV (IHF)

S/N Mono: 76 dB
Stereo: 70 dB

Harmonic distortion at 1 kHz Mono: 0.3 %
Stereo: 0.5 %

Separation 45 dB at 1 kHz

Frequency response 30 Hz - 15 kHz $^{+0.5}_{-2}$ dB

Selectivity 60 dB at 400 kHz

AM tuner section

Tuning range With 10 kHz interval*:
530 - 1710 kHz
With 9 kHz interval:
531 - 1710 kHz

Antenna Loop antenna

Usable sensitivity 50 dB/m (at 1,000 kHz or 999 kHz)

S/N 54 dB (at 50 mV/m)

Harmonic distortion 0.5 % (50 mV/m, 400 kHz)

Selectivity At 9 kHz: 35 dB
At 10 kHz: 40 dB

* You can change the AM tuning interval to 9 kHz. After tuning in any AM station, turn off the receiver. Hold down the PRESET TUNING + button and press the POWER button. All preset stations will be erased when you change the interval. To reset the interval to 10 kHz, repeat the procedure.

Video section

Inputs VIDEO 1, 2, 3*, TV, LD:
1 Vp-p 75 ohms
(*STR-D965 only)

Outputs VIDEO 1, 2, MONITOR:
1 Vp-p 75 ohms

General

System Tuner section: PLL quartz-locked digital synthesizer system
Preamplifier section: Low-noise NF type equalizer
Power amplifier section: Pure-complimentary SEPP

Power requirements 120 V AC, 60 Hz

Power consumption STR-D965:
USA model: 230 W
Canada model: 325 VA
STR-D865:
USA model: 220 W
Canada model: 320 VA

AC outlets 2 switched, total 120 W

Dimensions 17 x 5 7/8 x 14 inches (430 x 148 x 355 mm)

Mass (Approx.) STR-D965: 10.0 kg (22 lb 1 oz)
STR-D865: 9.7 kg (21 lb 7 oz)

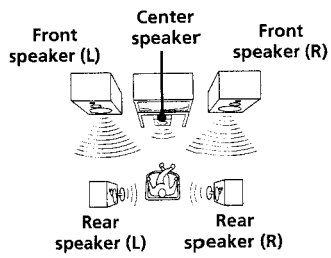
Supplied accessories FM wire antenna (1)
AM loop antenna (1)
Remote commander (remote) (1)
Size AA (R6) batteries (2)

Design and specifications are subject to change without notice.

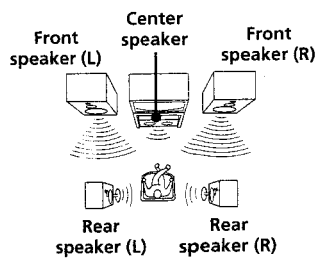
Glossary

Center mode
Setting of speakers to enhance Dolby Pro Logic Surround mode. To obtain the best possible surround sound, select one of the following four center modes according to your speaker system.

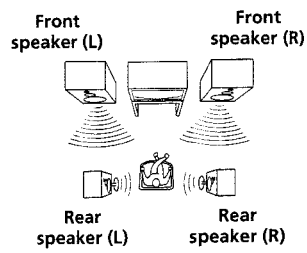
- **NORMAL mode**
  Select NORMAL mode if you have front and rear speakers and a small center speaker. Since a small speaker cannot produce enough bass, the bass sound of the center channel is output from the front speakers.



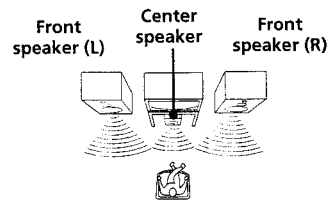
- **WIDE mode**
  Select WIDE mode if you have front and rear speakers and a large center speaker. With the WIDE mode, you can take full advantage of Dolby Surround sound.



- **PHANTOM mode**
  Select PHANTOM mode if you have front and rear speakers but no center speaker. The sound of the center channel is output from the front speakers.



- **3 CH LOGIC mode**
  Select 3 CH LOGIC mode if you have front and center speakers but no rear speaker. The sound of the rear channel is output from the front speakers to let you experience some of the surround sound without using rear speakers.



Delay time
Time lag between the surround sound output from front speakers and rear speakers. By adjusting the delay time of the rear speakers, you can obtain the feeling of presence. Make the delay time longer when you have placed the rear speakers in a small room or close to your listening position, and make it shorter when you have placed them in a large room or apart from your listening position.

Direct tuning
Tuning method to let you directly enter a station's frequency using the numeric buttons. Use this method if you know the frequency of the station you want.

Dolby Pro Logic Surround
Decoding system of Dolby Surround sound standardized in TV programs and movies. Compared with the former Dolby Surround system, Dolby Pro Logic Surround improves sound image by using four separate channels: off-screen audio effects, on-screen dialog, left-to-right panning, and music. These channels manipulate the sound to be heard and enhance the action as it happens on the screen. To take advantage of Dolby Pro Logic, you should have at least one pair of rear speakers and/or one center speaker. You also need to select the appropriate center mode to enjoy a full effect.

Dolby Surround
Encoding and decoding system of Dolby Surround sound for consumer use. Dolby Surround decodes the extra channels on the Dolby Surround-encoded sound tracks of movie videos and TV programs and produces sound effects and echoes that make the action seem to envelop you.

The receiver offers Dolby Surround as one of the pre-programmed sound fields. If you have rear or center speaker(s), we recommend that you customize the Dolby Surround sound field by selecting the appropriate center mode to take advantage of Dolby Pro Logic Surround sound.

Effect level
Combination of the level of early reflections and reverberation. You can adjust the effect level in 6 levels. As you select higher levels, the room becomes "live," and as you select lower levels, the room becomes "dead."

Memory page
Internal memory to store preset radio stations. This receiver provides 3 "pages" (A, B, and C). Each memory page lets you store 10 FM or AM stations; therefore, you can store a total of 30 stations.

Parameter
Variable of sound that composes sound image, such as tone or delay time. You can customize the pre-programmed sound fields by adjusting parameters to suit your listening situation.

Preset station
A radio broadcasting station that is stored in memory of the receiver. Once you "preset" stations, you no longer have to tune in the stations. Each preset station is assigned its own preset number, which lets you tune them in quickly.

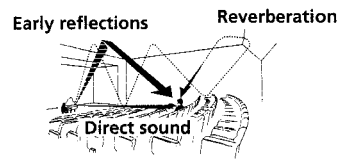
Programmable remote
Remote control with "learning" capability. You can control not only Sony components but non-Sony components by programming the control signals of these components.

Sound field
Sound pattern produced by a sounding source or sources in a given environment due to direct and reflected sounds and the acoustics of the environment. The receiver offers 6 pre-programmed sound fields (DOLBY SUR, THEATER, STADIUM, HALL, GAME, and ACOUSTIC) to let you enjoy surround sound easily.

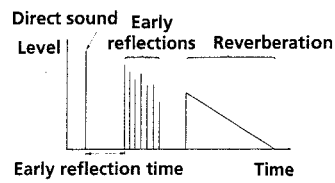
Station index
Index name given to preset radio stations. You can group preset stations by assigning the same station index to them.

Surround sound
Sound that consists of three elements: direct sound, early reflected sound (early reflections) and reverberative sound (reverberation). The acoustics where you hear the sound affect the way these three sound elements are heard. These sound elements are combined in such a way that you can actually feel the size and the type of a concert hall.

- **Types of sound**

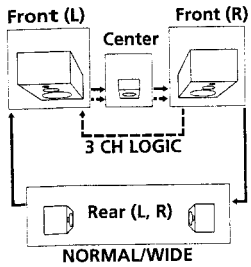


- **Transition of sound from rear speakers**

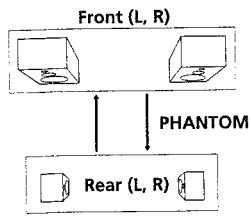


Test tone
Signal given out by the receiver for adjusting the speaker volume. The test tone will come out as follows:

- **In a system with a center speaker (NORMAL/WIDE/3 CH LOGIC modes)**
  The test tone is output from the front L (left), center, front R (right), and rear speakers in succession.



- **In a system without a center speaker (PHANTOM mode)**
  The test tone is output from the front and the rear speakers alternately.



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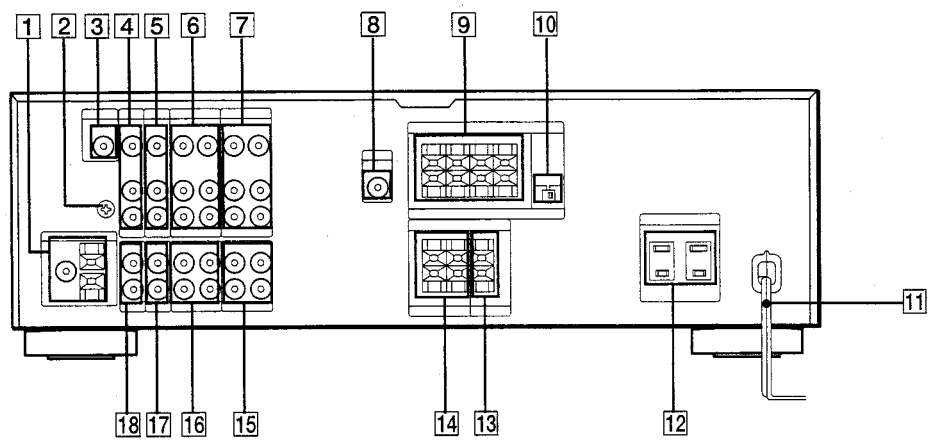


1 ANTENNA (AM/FM)
2 ⏚ ground terminal
3 MONITOR
4 TV
5 LD
6 VIDEO 2
7 VIDEO 1
8 MIX OUT
9 FRONT SPEAKERS (A/B)
10 IMPEDANCE SELECTOR
11 AC power cord
12 SWITCHED AC OUTLET
13 SURROUND SPEAKERS (CENTER)
14 SURROUND SPEAKERS (REAR)
15 TAPE
16 DAT/MD
17 CD
18 PHONO

Remote Button Descriptions

For buttons not described on previous pages and buttons with names different from the buttons on the main unit.

Remote Button	Operates	Function
0-9	Receiver	Selects preset numbers.
	CD player/MD recorder LD player	Selects track numbers. 0 selects track 10.
	TV/VCR	Selects channel numbers.
>10	CD player/ Tape deck/ LD player/ MD recorder	Selects track numbers over 10.
CH/PRESET +/–	Receiver	Scans and selects preset stations.
	TV/VCR	Selects preset channels.
INDEX	Receiver	Selects station index names for index select tuning.
D. SKIP	CD player	Skips discs (CD player with multi-disc changer only.)
◄◄/►►	CD player	Searches tracks (forward or backward).
	Tape deck/MD recorder/VCR/ LD player	Fastforwards or rewinds.
⏮/⏭	CD player/ MD recorder/ LD player	Skips tracks.
❚❚	CD player/ Tape deck/MD recorder/LD player/VCR	Pauses play or record. (Also starts recording with components in record standby.)
►	CD player/ Tape deck/MD recorder/LD player/VCR	Starts play.
■	CD player/ Tape deck/MD recorder/LD player/VCR	Stops play.
◄	Tape deck	Starts play on the reverse side.
●	Tape deck	Sets tape decks to the record standby mode.
● + ►	Tape deck/ MD recorder/ VCR	Starts recording when pressed with ► (or ◄ on tape deck).

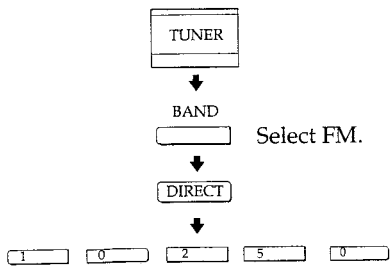
Remote Button	Operates	Function
RMS DIRECTION	Tape deck	Selects tape direction (for tape decks with the RMS* function.)
RMS CLEAR	Tape deck	Clears RMS* program (for tape decks with the RMS function.)
RMS/START	Tape deck	Programs tracks (tape deck with the RMS* function only).
ENTER	TV/VCR	Changes channels when used with 0-9.
TV/VIDEO	TV/VCR	Selects input signal: TV input or video input.
VISUAL POWER	TV/VCR/LD player	Turns on or off the power.
TV CONTROL ON	TV	Turns on the TV, switches the input to "TV," and sets the remote to operate the TV.
-/--	TV	Selects the channel entry mode, either one or two digit (in Europe only).
SUB CH +/–	TV	Selects preset channels for the small picture.**
POSI	TV	Changes the position of the small picture.**
SWAP	TV	Swaps the small and the large picture.**
P IN P	TV	Activates the picture-in-picture function.**
JUMP	TV	Jumps back and forth between the previous and current channels.
ANT TV/VTR	VCR	Selects output signal from the antenna terminal: TV signal or VCR program.

* RMS: Random Music Sensor

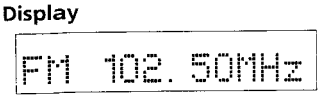
** Only for Sony TVs with the picture-in-picture function

Receiving Broadcasts (direct tuning)

Example: Receiving FM 102.50 MHz

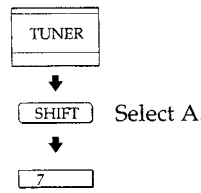


Display

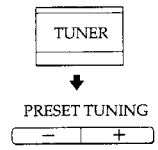


Receiving Preset Stations

Example: Receiving the station number A7

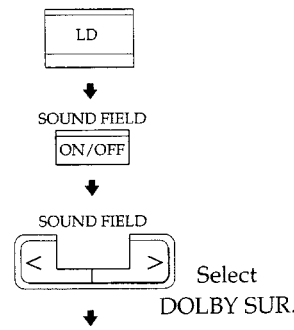


Scanning Preset Stations



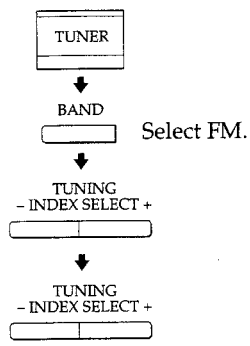
Using Pre-programmed Sound Fields

Example: Watching a Dolby Surround-encoded movie on laser disc



Scanning Radio Stations (automatic tuning)

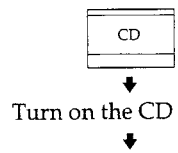
Example: Scanning FM stations



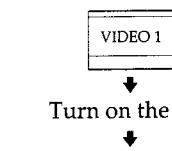
(To continue scanning.)

Selecting a Component

Example 1: Playing a CD

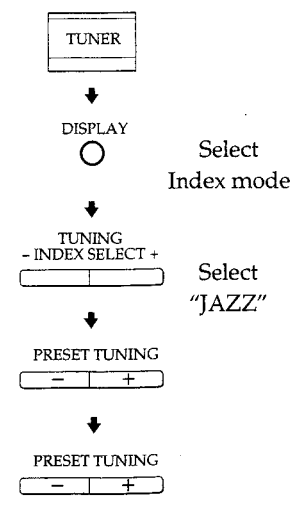


Example 2: Watching a video tape



Index tuning

Example: Scanning stations indexed as "JAZZ"



(to continue scanning)

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